

What is claimed is:

1 1. A method for manufacturing ear devices with at least one venting passage extending
2 essentially substantially over the length of said ear plug device between regions respectively
3 facing the ear drum and the outer ear environment comprising the steps of:
4 - providing data including a three-dimensional shape of said venting passage;
5 - construing parts for said ear devices by respectively depositing commonly a layer of
6 one of a liquid and of a powderous material and solidifying by a laser arrangement in said
7 layer individually shaped layers of said parts, thereby controlling said laser arrangement with
8 said data to solidify in said layers respectively a contour of a cross-section of said venting
9 passage.

1 2. The method of claim 1, further comprising performing said depositing by depositing a
2 layer of powder material in a predetermined plane, and depositing upon said solidified layers
3 of said parts a further layer of said powder material and further solidifying said powder
4 material, thereby forming a further contour of said cross-section respectively with a different
5 shape or dimension.

1 3. The method of claim 1, further comprising solidifying said layers of said parts
2 mutually separated.

1 4. The method of claim 1, further comprising performing said depositing by depositing a
2 layer of liquid material in a predetermined plane and redepositing upon said solidified layers
3 of said parts a further layer of liquid material.

1 5. The method of claim 1, further comprising the step of performing said solidifying by
2 means of more than one laser beam operated simultaneously to simultaneously solidify said
3 layers of said parts.

1 6. The method of claim 1, further comprising performing said solidifying by solidifying
2 at least two of said layers by one laser beam.

1 7. The method of claim 1, further comprising the step of providing by said solidifying at
2 least two of said contours in at least one of said layers of said parts.

1 8. The method of claim 1, further comprising the step of providing by said solidifying
2 said contour of said venting passage, at least one of said layers being open to the unsolidified
3 of said layers.

1 9. A method for manufacturing ear devices comprising the steps of:

2 - providing data of a three-dimensional shape of at least one venting passage for the
3 hearing devices;

4 - construing parts for said ear devices having said venting passage by providing a layer
5 of a powderous or liquid material and solidifying at least two layers of said parts by common
6 laser arrangement subsequently operating for solidifying one of said layers of said parts and
7 then the other of said layers of said parts, thereby controlling said laser arrangement by said
8 data and solidifying a contour of said venting passage in said layers.

1 10. The method of claim 9, further comprising providing said layer of powder material in
2 a predetermined plane, providing a further layer of said powder material upon said solidified
3 layers and solidifying said further layer of said powder, thereby solidifying a further cross-
4 sectional contour of said venting passage with a different shape or dimension.

1 11. The method of claim 9, further comprising providing said layer of liquid material in a
2 predetermined plane, providing a further layer of liquid material upon said solidified layers of
3 said parts and further solidifying said further layer of liquid material, thereby forming a
4 further cross-sectional contour of said venting passages with a different shape or dimension.

1 12. The method of claim 9, further comprising the step of performing said solidifying by
2 means of more than one laser beam operated simultaneously to simultaneously solidify layers
3 of said parts.

1 13. The method of claim 9, further comprising performing said solidifying by solidifying
2 at least two of said layers by one laser beam.

1 14. The method of claim 9, further comprising the step of providing by said solidifying at
2 least two of said contours in at least one of said layers of said parts.

1 15. The method of claim 9, further comprising the step of providing by said solidifying
2 said contour of said venting passage of at least one of said layers being open to the
3 unsolidified of said layers.

1 16. A method for manufacturing ear devices comprising the steps of:
2 - providing data of the three-dimensional shape of at least one venting passage for the
3 hearing devices;
4 - depositing layers of fluidic material in a predetermined plane;
5 - solidifying said deposited layers of fluidic material, thereby solidifying in each of
6 said layers a cross-sectional contour of the venting passage for said device and depositing a
7 further layer of fluidic material upon said solidified layers, thereby controlling said deposition
8 of layers of said fluidic material by said data.

1 17. The method of claim 16, further comprising depositing upon said solidified layers a
2 further layer of said fluidic material and further solidifying said fluidic material, thereby
3 forming a further contour of said cross-section with a different shape or dimension.

1 18. The method of claim 16, further comprising the step of providing at least two of said
2 contours in at least one of said layers.

1 19. The method of claim 16, further comprising the step of providing said contour of said
2 venting passage at at least one of said layers being open.

1 20. A method for simultaneously manufacturing a plurality of parts of ear devices
2 comprising:
3 - providing data for each of said parts including data of venting passages;
4 -simultaneously construing said parts of said devices at a respective location, the step
5 of construing said parts including providing at each respective location a layer of solidifiable
6 material and solidifying by a solidifying aspect that operates at each respective location a

7 portion of the material to provide a portion of the respective part utilizing the provided data
8 and thereby solidifying a contour of a cross-section of said venting passages.

1 21. The method of claim 20, wherein the solidifiable material is a material that is
2 solidified by laser energy and a solidifying aspect includes a laser arrangement that provides
3 laser energy at each location and at each location solidifying the portion of the material to
4 provide the portion of the respective part.

1 22. The method according to claim 21, wherein the laser arrangement is moved
2 sequentially to each location.

1 23. The method of claim 22, wherein the laser arrangement is moved repeatedly to each
2 location in the sequence until the part at the respective location is completely provided
3 including a venting passage.

1 24. The method of claim 20, wherein each part is provided by successive addition of
2 solidified portions respectively defining for a cross-sectional contour of said venting passage.

1 25. The method as set forth in claim 20, where in the solidifiable material is at least one
2 of a liquid and of a powder.

1 26. The method as set forth in claim 20, wherein the solidified material of each location is
2 commonly provided among all of said locations.